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Keywords

climate change, expectations, survey experiments, RCT

JEL Classification

C33, D84, E31, E52, Q4

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November 27, 2025

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We provide novel causal evidence that macroeconomic narrative framing, whether a policy is described as a supply or demand shock, significantly shapes household beliefs. In a randomized survey experiment conducted within the Bundesbank household panel, participants received identical information about a climate policy that was framed differently across treatments. While both the supply and demand narratives lower growth expectations, we find that the supply framing increases inflation expectations, whereas the demand framing does not reduce them. This highlights that how structural policies are communicated, not just what is communicated, critically influences expectation formation. Our findings offer new insights for central bank and government communication strategies during economic transitions like the green transition or AI adoption.

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1 Introduction

Households systematically interpret inflation as a sign of economic weakness. Instead of associating rising prices with stronger demand, they link inflation to falling output, higher unemployment, and declining real incomes—a pattern known as the "stagflationary view." This interpretation has major implications for the credibility of policy interventions, especially when central banks and governments aim to guide expectations. This paper provides causal evidence that narrative framing, whether the green transition policy is described as a negative supply or demand shock, significantly shapes macroeconomic beliefs. While both framings reduce growth expectations, our results show that the supply framing increases inflation expectations, whereas the demand framing fails to decrease them. Thus, how policy is communicated can be as influential as the policy itself.

The evidence on the stagflationary view of inflation has been documented consistently across countries and periods. In the United States, Kamdar and Ray (2024) show that consumers expecting higher inflation are simultaneously pessimistic about future economic activity, with inflation and unemployment expectations moving together. Candia et al. (2020) find that both households and firms hold such beliefs. Ferreira and Pica (2025) find that European households raise inflation expectations in response to both negative supply and demand shocks. At a global level, D'Acunto et al. (2025) report that in over thirty economies, households anticipating higher inflation also expect weaker growth or falling real incomes. These findings suggest that many households anchor their beliefs in a supply-side, rather than demand-driven, understanding of inflation.

Using experimental designs to exogenously shift inflation expectations, Coibion et al. (2022) and Coibion et al. (2023) focus on the consequences of altered expectations for spending or income perceptions and demonstrate that raising inflation

expectations reduces durable consumption or optimism about real income, outcomes consistent with a stagflationary interpretation. Asking households for their rationale why they dislike inflation, Shiller (1996) and Stantcheva (2024) suggest that households' fear of deteriorating purchasing power and declining living standards might be reasons why households hold such beliefs.

Yet despite this growing evidence in favor of the supply-driven view, we lack causal evidence whether households adopt stagflationary expectations also because of the economic narrative in which policy information is embedded. This paper addresses that gap. Using a randomized controlled trial (RCT), embedded in the Bundesbank Online Panel of Households (BOP-HH), we examine how framing the green transition as a negative supply versus demand shock influences macroeconomic expectations. Holding the content of climate policy constant, we vary only the narrative framing, whether the transition is described as affecting the economy through production constraints or reduced consumption.

We use the green transition as a theme of our RCT for two main reasons. First, climate change mitigation policies are a salient policy intervention. Second, they are an economically ambiguous structural shock since they can be plausibly framed either as supply-side measures that raise production costs and constrain capacity, or as demand-side measures that dampen consumption and investment. This ambiguity makes the green transition an ideal setting for studying how framing affects belief formation. Our RCT setup exposes respondents to identical climate-policy information framed through different economic reasoning. All participants first receive a neutral primer describing Germany's emission-reduction goals and related measures. Treatment groups then receive additional information emphasizing either supply- or demand-side mechanisms. After the information exposure, we elicit expectations for inflation, output growth, and trust in the European Central Bank's (ECB) ability to maintain price stability. This is relevant

because a supply-driven interpretation of inflation by households can reduce the effectiveness of demand-based monetary policy.

Our findings are threefold. First, neutral climate policy information presented without any explicit economic framing leads to lower growth expectations, higher quantitative inflation expectations, and reduced institutional trust. Second, when the policy measures are framed in supply-side terms, households exhibit stagflationary updating, i.e., inflation expectations rise while growth expectations decline. In contrast, demand-side framing depresses growth expectations but has either no effect or a positive effect on inflation expectations, suggesting no disinflationary updating of beliefs. Third, we do not find any sizeable impact of either supply- or demand-oriented information on trust in the ECB, indicating that credibility may not be sensitive to the narrative framing of the shock per se.

Against this background, this paper makes two contributions. First, empirically, it offers the first causal evidence that the economic framing of a policy and not just its content shapes inflation and growth expectations. Second, theoretically, it advances our understanding of belief formation under uncertainty, supporting the view that narratives and not just news drive expectation formation. These findings are particularly relevant for central bank communication during structural transitions such as the green transition, where the public's macroeconomic interpretations may diverge sharply from experts' views. They also suggest that narrative framing can be a strategic policy tool. Carefully interpreting the economic frame of a given policy may influence public beliefs, manage inflation expectations, and reinforce institutional credibility without altering the policy itself.

Our findings contribute to several literatures. First, they extend the emerging behavioral macroeconomics literature on expectation formation by providing direct causal evidence on how households interpret macroeconomic shocks.

Whereas previous experiments documented behavioral responses to shifted expectations (Coibion et al., 2023, 2022), we show how those expectations arise in the first place. Second, our study contributes to the emerging literature on climate change and macroeconomic beliefs (Georgarakos et al., 2025; Dietrich et al., 2024; Meinerding et al., 2023), but with a distinct focus. Existing work has primarily studied how climate-related concerns or news about physical risks affect expectations. Meinerding et al. (2023) document a negative correlation between climate concerns and inflation expectations, Georgarakos et al. (2025) use an RCT to show that information about higher future temperatures raises inflation expectations, and Dietrich et al. (2024) interpret increases in the perceived probability of climate catastrophes as negative news shocks in a macroeconomic model. In contrast, we focus on households' macroeconomic beliefs in response to climate policies themselves, treating these policies as macroeconomic shocks. We show that narrative framing of climate policies as either demand or supply shocks helps explain divergent findings in prior research. When climate policy is framed as a demand shock, households revise their growth expectations downward while keeping inflation expectations either unchanged or higher, implying no disinflationary updating of beliefs. In contrast, a supply framing lowers growth expectations and raises inflation expectations, consistent with a stagflationary pattern. These differences suggest that observed variation across studies may stem not only from the content of climate-related information, but also from how the policy context is economically framed.

Finally, our findings speak to debates on central-bank communication and credibility (Blinder et al., 2024). Eickmeier and Petersen (2024) show that a majority of households in Germany report increased trust in the ECB due to its climate engagement, valuing the institution's broader scope and concern. We complement this evidence by showing that, during structural transitions, growth

expectations appear more central to trust than inflation fears. This suggests that effective communication may require narratives that address the perceived output costs of policy measures, not only their price implications.

The remainder of the paper is organized as follows. Section 2 describes the experimental design and data. Section 3 presents the results. Section 4 discusses mechanisms, policy implications, and concludes.

2 Experimental design

We study how households form macroeconomic expectations in response to different narratives about climate policy. Specifically, we test whether framing the green transition as a supply- or demand-side shock differentially affects beliefs about inflation, output growth, and institutional trust. To do so, we embedded a randomized survey experiment in the Bundesbank Online Panel of Households (BOP-HH), a large-scale monthly online survey that collects economic expectations and attitudes from a representative sample of German households with participants being German citizens aged 16 years or older.

The experiment was fielded in June 2025, and was completed by 4,048 respondents. This wave was augmented to include our RCT and six additional questions on expectations of economic growth and inflation in the medium term, considering the green transition of the economy, and trust in the ECB's ability to ensure price stability during the green transition. In addition, we use responses from the core questionnaire on macroeconomic expectations, on concerns about current macroeconomic developments and socio-demographic information in our analysis.

2.1 RCT and key questions of interest

All participants were first asked about their qualitative expectations of the unemployment rate in Germany, the inflation rate, economic growth in Germany and fuel prices. Half of the sample was asked about their expectations three years ahead and the other half about their expectations five years ahead, in line with the default core questions design in the BOP-HH survey regarding medium-term quantitative inflation expectations at the three- and five-year horizons. This question was worded as follows:

- "How do you expect the [metric] to develop over the twelve months between June 2027 and June 2028 [on average over the next five years]?"

The respondents could choose their answer on a scale of 1 ("decrease significantly") to 5 ("increase significantly").

Afterwards, all participants were shown a short, neutral text that described the goals and instruments of climate mitigation policy in Germany.

- "Now we would like to provide some information about climate change mitigation measures in Germany.

  Reducing carbon emissions is one of the most important objectives for limiting the impact of climate change. This is why Germany has committed to reducing its carbon emissions by 65% by 2030 compared with 1990. An increasing number of measures are being implemented in order to achieve this objective.

  Examples of such measures that could affect both firms and households are the phasing-out of coal power, a carbon price on fuel, as well as funding programmes for energy-efficient buildings and renewable energy."

This description was designed to convey factual information without introducing any directional economic interpretation.

After reading the primer, respondents were randomly assigned to one of three groups: a control group, which received no additional information, or one of two treatment groups, each receiving a short paragraph that emphasized either the supply- or demand-side consequences of the green transition.
In the demand-side treatment, participants read

- "Let us now look at the potential impact of these measures to reduce carbon emissions on the economy.

  Some economists expect that the transition to a climate-neutral economy could dampen consumption levels and investment in Germany. Certain assets, such as fossil fuel reserves or specialised machinery, could lose value and jobs in affected sectors may be cut. Such a decline in income and wealth could lead to lower investment and consumption throughout the economy."

In the supply-side treatment, the paragraph instead stated:

- "Let us now look at the potential impact of these measures to reduce carbon emissions on the economy.

  Some economists expect that the transition to a climate-neutral economy could dampen production in Germany. The switch to climate-friendly processes could increase costs, lead to restructuring of individual industrial sectors, reduce the supply of goods or lead to delays in supply chains. Such a decline in capacities could lead to lower production throughout the economy."

The wording of both treatments was intentionally parallel in structure, length, and tone, differing only in the supply vs. demand mechanism emphasized (see, e.g. Ciccarelli and Marotta (2024)). Treatments were randomized at the individual level. All respondents were then asked the same set of outcome questions.

First, directly following the information treatment, the demand and supply groups were asked whether they agree with the provided information:

- "To what extent do you agree with these statements on the potential impact of measures to reduce carbon emissions on the economy?" where, on a scale of 1 to 10, 1 refers to "strongly disagree" and 10 refers to "strongly agree".

Following this question, all groups were asked qualitatively about their medium-term expectations of inflation and economic growth on a scale of 1 ("decrease significantly") to 5 ("increase significantly"):

- "How do you expect economic growth in Germany would respond to measures to achieve climate targets over the twelve months between June 2027 and June 2028 [respond on average to measures to achieve climate targets over the next five years]?"

- "And how do you expect the inflation rate in Germany would respond to measures to achieve climate targets over the twelve months between June 2027 and June 2028 [respond on average to measures to achieve climate targets over the next five years]?"

Afterwards, the respondents were asked about the expected level of medium-term inflation, taking into account the green transition:

- "And what value do you think the rate of inflation or deflation would take over the twelve months between June 2027 and June 2028 [would take on average over the next five years] if the measures to achieve climate targets were taken into account?" where respondents were asked to write down a percentage value with a maximum of one decimal place.

Finally, considering that physical and transition risks associated with climate change may affect the economy and, consequently, price stability, we asked the

participants whether climate policy would have an impact on the ECB's ability to fulfil its mandate.

- "The European Central Bank (ECB) is responsible for safeguarding price stability in the euro area.

  What impact do you expect the Federal Government's measures to reduce carbon emissions to have on the European Central Bank's ability to safeguard price stability?" where, on a scale of 1 to 5, 1 refers to "be strengthened significantly" and 5 to "be weakened significantly".

To ensure internal validity, randomization checks in the Appendix A confirm balance across treatment arms on demographics characteristics. Because all respondents received the same underlying policy information and differed only in how its economic consequences were described, any differences in expectations across groups can be causally attributed to the framing mechanism.

Since half of the sample reported expectations three years ahead and the other half five years ahead, we focus on the five-year horizon in the main text and present the corresponding three-year results in the Appendix. Our focus on the five-year-ahead horizon aligns with the primer's stated goal of reducing carbon emissions by 65% by 2030 relatively to 1990 levels.

To mitigate the influence of outliers in quantitative inflation expectations, we remove the top and bottom 2.5% of quantitative observations and, in subsequent analyses, employ Huber regressions to endogenously downweight the effect of extreme values. Finally, for qualitative macroeconomic expectations and trust in the ECB, we group the original five response categories into three for ease of interpretation. Qualitative expectations of economic growth and inflation are thus measured on a three-category scale: decrease, stay the same, and increase. Similarly, trust in the central bank is measured on a three-category scale: strengthened, unaffected, and weakened.

2.2 Data and stylized facts

2.2.1 Summary Statistics

Table A1 in the Appendix shows socio-demographic characteristics of the whole sample across the control group and treated groups. Results of balance tests show that differences in age, gender, household income, college degree and location in Germany are clearly not significant, hence, demographics are similar across groups. This result also holds for respondents who were either asked about their macroeconomic expectations over the next three or five years (Table A2 and Table A3).

2.2.2 Stylized facts

In the following section, we replicate two key empirical patterns from the literature on inflation expectations and climate change within our sample. First, consistent with Meinerding et al. (2023), we find a negative correlation between a household's concern about climate change and its inflation expectations. In the core questionnaire, respondents rate the seriousness of climate change on a scale of 1 ("no problem at all") to 10 ("an extremely serious problem"). While we do not attempt to explain variation in climate concern itself, we use this variable to examine heterogeneity in belief formation later on. As shown in columns (1) and (2) of Table 1, the negative association between climate concern and inflation expectations is statistically significant in our data.

Second, we observe a negative relationship between households' growth expectations and both their quantitative and qualitative inflation expectations, consistent with findings in Coibion et al. (2023). Columns (3)–(6) of Table 1 summarize these results. This pattern supports a supply-side view of macroeconomic expectations, in which higher inflation is associated with weaker economic growth.

Table 1: Stylized facts

	(1)	(2)	(3)	(4)	(5)	(6)
	Prior quant. inflation exp. 5y ahead		Prior qual. inflation exp. 5y ahead		Prior quant. inflation exp. 5y ahead	
Climate concern	-0.054***	-0.062***				
	(0.01)	(0.01)				
Prior qual. growth exp.			-0.25***	-0.26***	-0.34***	-0.35***
			(0.02)	(0.02)	(0.03)	(0.03)
Adj. R^2	0.013	0.030	0.101	0.108	0.063	0.072
N observations	1909	1853	2014	1950	1908	1853
Demographics	No	Yes	No	Yes	No	Yes

Note: This table presents the estimated effects from Huber regressions for columns (1), (2), (5), and (6) as well as OLS regressions for columns (3) and (4). Demographic controls include age, gender, education, household income, and region. Standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

3 Results

This section presents the effects of the experimental treatments on households' macroeconomic expectations and institutional trust. We begin by documenting the effects of the neutral climate-policy information alone (control group), then turn to the differential effects of supply- and demand-framing treatments. We conclude with a discussion of heterogeneity by respondents' concerns and socio-demographic characteristics.

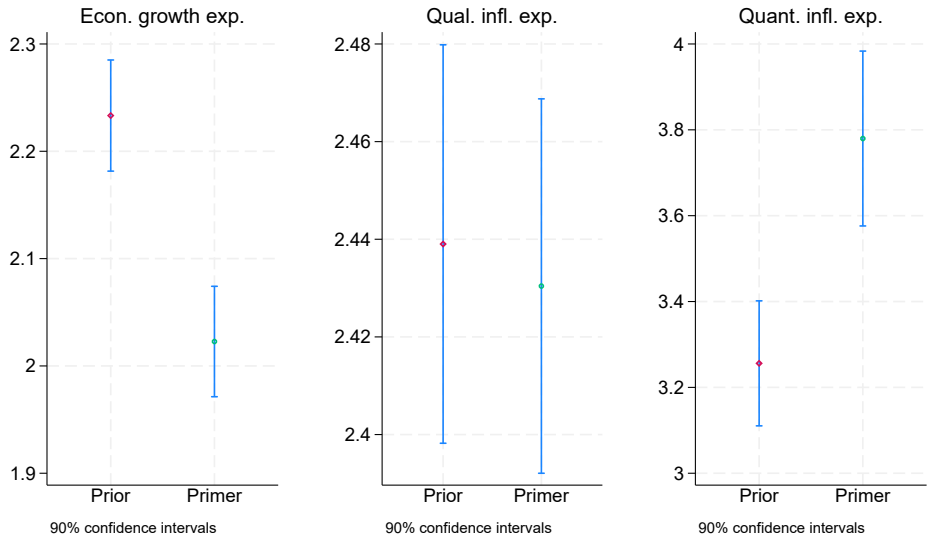
3.1 Effects of the general primer information

The control group received only the general primer on climate policy, without any explicit economic framing. This setup allows us to isolate the effect of basic information about climate targets and mitigation measures on households' macroeconomic expectations, taking into account wording differences in pre- and post-treatment survey questions.

As shown in Figure 1, average growth expectations decline significantly after the primer information, from 2.25 to 2 on a scale of 1 to 3. Qualitative inflation

expectations remain unchanged, but quantitative inflation expectations rise from a mean of 3.2% to 3.8%. These results suggest that even neutral, fact-based climate communication tends to induce an interpretation resembling a negative supply shock—that is, lower expected growth accompanied by upward pressure on inflation.

Figure 1: Prior and posterior macroeconomic expectations: Control group



Note: These figures show the average of the corresponding variable with 90% confidence intervals for the pre- and post-treatment questions within the control group. Qualitative expectations of economic growth and inflation are thus measured on a three-category scale: decrease (1), stay the same (2), and increase (3).

3.2 Treatment effects

3.2.1 Agreement with the treatment statements

While the control group received only the general primer on climate targets and mitigation measures, the two treatment groups received additional information emphasizing either demand- or supply-side effects of the green transition. This setup allows us to causally identify and examine whether framing the same climate

policy content through different economic narratives influences macroeconomic expectations relative to the control group.

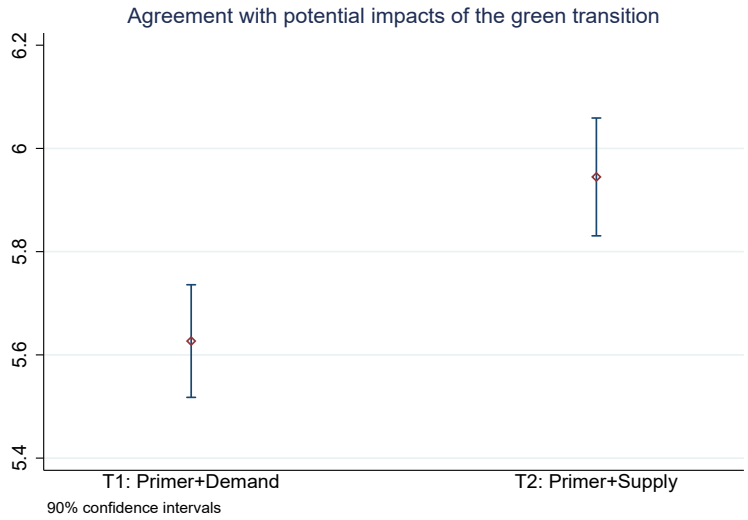
Immediately following the information treatments, respondents were asked to indicate their level of agreement with the economic consequences described on a scale of 1 to 10. Figure 2 shows the average level of agreement in the two treated groups. Overall, respondents tend to agree with the potential impacts of green transition policies, but agreement is significantly higher in the supply treatment group (mean of 5.94) than in the demand treatment group (mean of 5.63), consistent with the earlier results in Section 3.1 that point to a supply-driven interpretation of climate policy.

When considering socio-demographic variables (Table A4), we find that being female or having a college degree is associated with lower agreement with both information treatments. When we additionally control for concerns about climate change and concerns about the economic situation, both these concerns become statistically significant predictors of agreement in both treatment groups. Specifically, greater concern about climate change is associated with lower agreement, whereas greater concern about the economic situation increases agreement. Notably, once these controls are included, the gender effect becomes insignificant and the effect of education diminishes. In Section 3.5, we further explore the heterogeneity of treatment effects across households' concerns and demographic characteristics.

3.3 Causal effects on macroeconomic expectations

Figure 3 and Figure 4 show the distribution of posterior expectations about economic growth and inflation over the next five years across the control and treatment groups. Respondents were asked whether they expect growth or inflation to decrease, remain unchanged, or increase. Growth expectations decline further in

Figure 2: Treatment Agreement

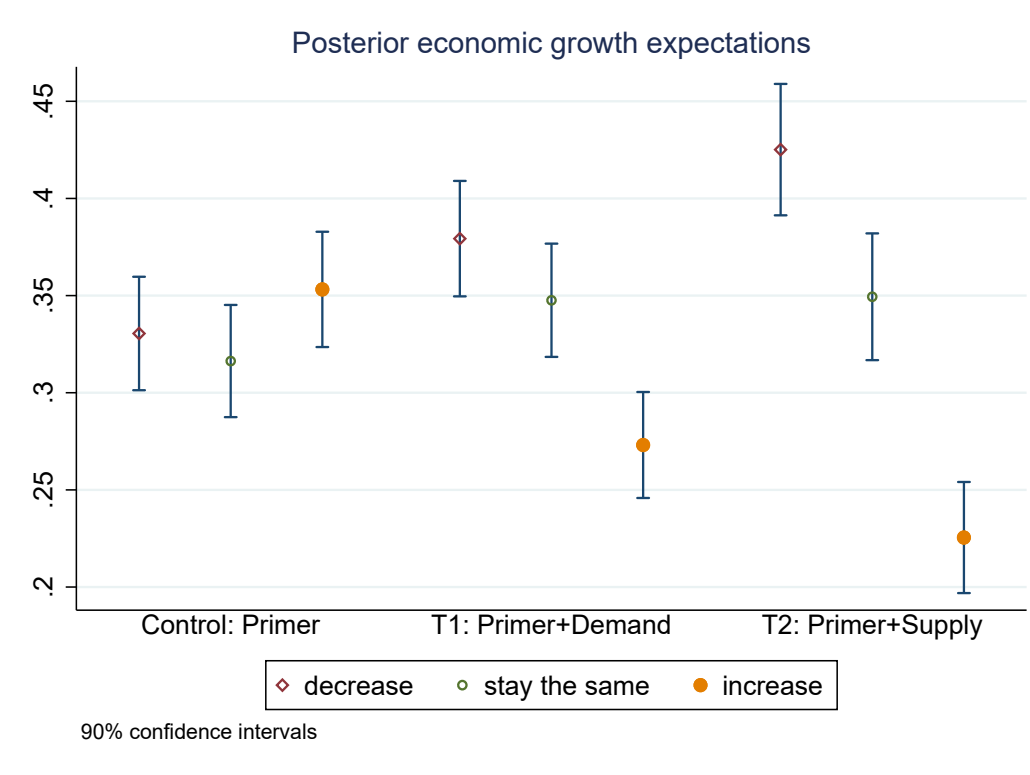


Note: These figures show the average agreement of the information treatments with 90% confidence intervals. The degree of agreement is rated on a scale of 1 to 10.

both treatment groups compared to the control group, indicating that both additional economic framings amplify the pessimism about future growth prospects. Inflation expectations, however, diverge across treatments. A significantly larger share of respondents in the supply group expects inflation to increase, while expectations in the demand group remain statistically indistinguishable from the control. Taken together, these patterns suggest that the supply narrative triggers a stagflationary belief updating, combining lower growth and higher inflation expectations.

The results of the ordered probit regressions for post-treatment qualitative growth and inflation expectations and Huber regressions for quantitative inflation expectations on treatments are shown in Table 2. Column (1) reports the marginal treatment effects on qualitative growth expectations. Those who receive the supply and demand treatments are more likely to state a decrease in growth expectations, with a higher, albeit insignificantly, magnitude for the supply treatment relative to the demand treatment. Exposure to the demand information reduces

Figure 3: Posterior economic growth expectations: Control vs. Treated groups



Note: How do you expect economic growth in Germany would respond to measures to achieve climate targets over the next 5 years? [decrease; stay the same; increase].

the probability of expecting an increase in economic growth by 7.2 percentage points relative to the control group; for supply-treated respondents the magnitude is 11 percentage points. Columns (2) and (3) show the respective marginal effects on qualitative and quantitative inflation expectations. There is no significant effect of the demand treatment, whereas being treated with the supply information leads to a significant increase in inflation expectations. Column (3) reports Huber regression estimates: the supply treatment is associated with a 0.23 percentage point increase in the average quantitative inflation expectation.

Table A5 in the appendix shows results for respondents who provide macroeconomic expectations 3 years ahead. The results for the supply treatment group remain largely unchanged. However, for the demand treatment, we find lower

Figure 4: Posterior inflation expectations: Control vs. Treated groups



Note: How do you expect the inflation rate in Germany would respond to measures to achieve climate targets over the next 5 years? [decrease; stay the same; increase].

expectations for economic growth, no significant effects on qualitative inflation expectations, but a significant increase in quantitative inflation expectations. This finding is noteworthy, as one would typically expect the demand treatment to reduce inflation expectations due to its association with lower aggregate demand. Hence, this robustness check confirms that there is no disinflationary updating after the demand treatment.

To sum up, neutral information on the climate target reduces growth expectations and increases inflation expectations. Both narratives on the green transition further reduce growth expectations, but only the supply framing consistently raises inflation expectations. The demand framing either has no effect on inflation expectations five years ahead or increases inflation expectations three years ahead.

Table 2: Treatment effects on posterior macroeconomic expectations 5 years ahead

	(1) Qualitative economic growth exp.	(2) Qualitative inflation exp.	(3) Quantitative inflation exp.
Control: Primer (reference)			
T1: Primer+Demand	-0.072***	0.0093	0.056
	(0.02)	(0.03)	(0.06)
T2: Primer+Supply	-0.11***	0.11***	0.23***
	(0.02)	(0.03)	(0.06)
Prior expectations	Yes	Yes	Yes
Demographics	Yes	Yes	Yes
Pseudo R^2	0.081	0.063	
Adj. R^2			0.810
N observations	1946	1937	1809

Note: This table presents the marginal effects of treatments on macroeconomic expectations 5 years ahead. Columns (1) and (2) report results for qualitative expectations of economic growth and inflation, respectively, measured on a three-category scale (decrease, stay the same, increase). The estimates are obtained from ordered probit regressions, with marginal effects reported for the likelihood of selecting increase. In Column (3), we report the estimated effects from Huber regressions for quantitative inflation expectations. Demographic controls include age, gender, education, household income, and region. Standard errors are reported in parentheses.
* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Overall, our results suggest that individuals update their beliefs in a stagflationary rather than a disinflationary direction. Framing therefore plays a central role in shaping macroeconomic beliefs, particularly with regard to inflation.

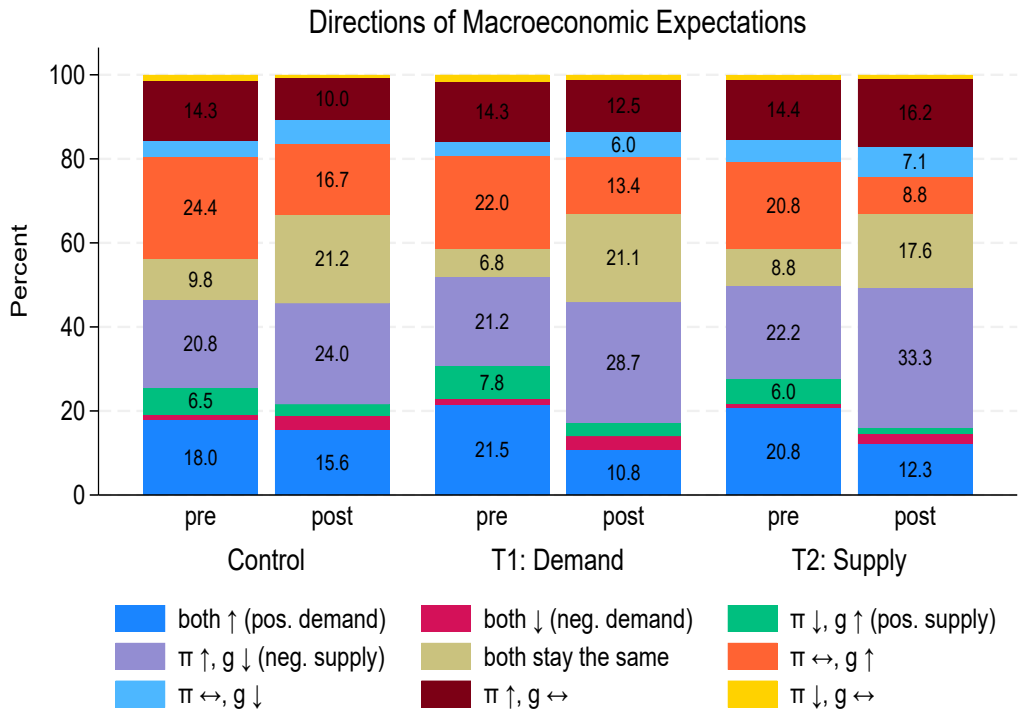
Finally, we analyse how households revise their expectations by comparing the directions of qualitative growth and inflation expectations (decrease, stay the same, increase) before and after treatment and across groups. Figure 5 shows the results. We find that across all groups, both before and after treatment, the share of respondents that hold a negative demand view, i.e. decreasing inflation and growth expectations, is negligible. This observation is in contrast to Meinerding et al. (2023) and Dietrich et al. (2024). A much larger share, around 20 % pre-treatment, is attributed to a positive demand view with increasing growth and inflation; however, this share decreases strongly for both treatments.

The dominant pattern across all groups is consistent with an adverse supply shock, in which households expect rising inflation alongside declining economic growth. This pattern is most pronounced in the supply treatment group (one third of all post-treatment responses), where the share of respondents holding this view increases most strongly after treatment. By contrast, the distribution of supply- and demand-related beliefs remains relatively stable in the control group. One notable exception in the control group is the decline in the share of households expecting higher output growth with stable inflation. This decrease is accompanied by a rise in the share of respondents expecting no change in either inflation or growth. This suggests that the observed shifts are driven by the economic framing of the policy rather than the general climate information.

3.4 Causal effects on trust in the ECB

Finally, we are interested in how households perceive the impact of the government's climate policy on the ECB's ability to ensure price stability. Figure 6

Figure 5: Directions of Growth and Inflation Expectations

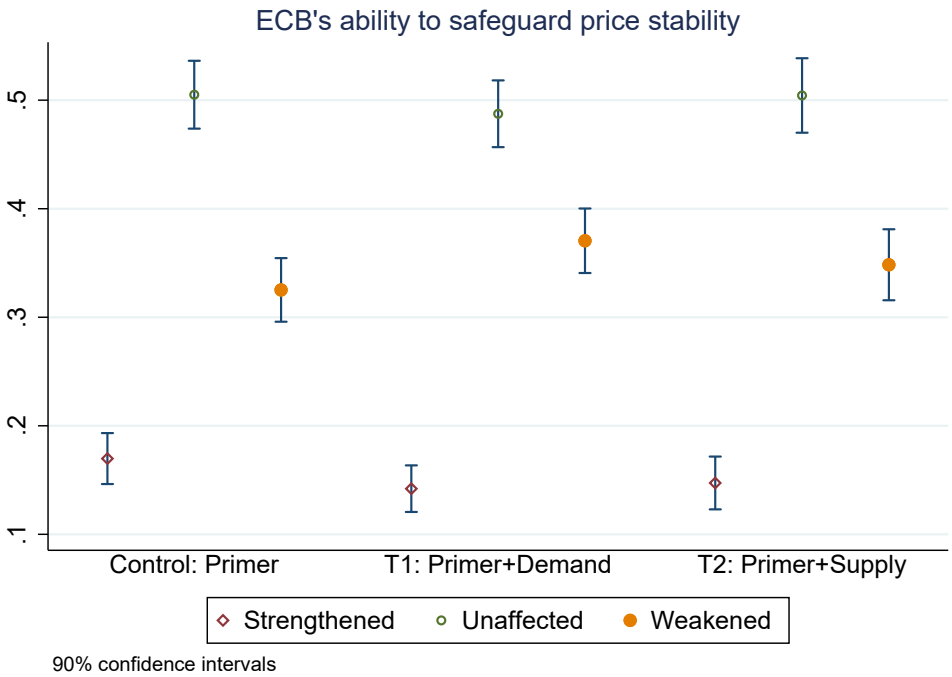


Note: This figure shows shares of respondents that expect inflation and growth five years ahead to move in the same direction, different directions etc. These shares are presented across groups and pre- and post-treatment.

displays the distribution of responses across treatment groups. For the control group, aside from the roughly 50% of respondents who expect that climate measures have no significant effect on the ECB's ability, 32% expect climate measures to weaken it, and only 18% expect them to strengthen it. After providing either demand or supply narratives, the distribution of views on how climate measures affect trust in the ECB remains largely unchanged compared with the control group. We observe a slightly higher share of respondents who believe that these measures weaken trust in the ECB, and a smaller share who think they strengthen it, with these shifts appearing primarily in the demand treatment group.

Table 3 shows the treatment effects on trust in the ECB's ability from ordered Probit regressions, with marginal effects reported for the likelihood of se-

Figure 6: Trust in ECB's ability: Control vs. Treated groups



Note: This figure shows the share of respondents, with 90% confidence intervals, who state that the ECB's ability to safeguard price stability will be strengthened, remain unaffected, or be weakened by the Federal Government's measures to reduce carbon emissions.

lecting "strengthened" compared with the control group who only received the primer information. Column (1) reports the marginal effects without controlling for posterior macroeconomic expectations. Those who received the demand treatment are 2.6 percentage points less likely to think that the climate measures will strengthen trust in the ECB, indicating a decline in trust relative to the control group. However, the magnitude of this effect is economically small and only marginally significant at the 10% level. The marginal effect of the supply treatment on trust in the ECB is also negative but statistically insignificant compared with the control group.

To explore the mechanism underlying this relationship, we re-estimate the model while controlling for posterior macroeconomic expectations. Column (2) shows that controlling for posterior qualitative inflation expectations leaves the demand treatment effect largely unchanged. When controlling for posterior growth expectations (Column (3)), the effect of the demand treatment not only becomes statistically insignificant but also decreases in magnitude by about half. At the same time, growth expectations are positively associated with trust in the ECB, suggesting that higher growth expectations strengthen respondents' confidence in the institution. Hence, the demand narrative appears to erode trust primarily through its negative impact on growth expectations. Table A6 in the Appendix shows similar results for respondents who provided three-year-ahead macroeconomic expectations.

Overall, our results suggest that providing additional information about the potential effects of the green transition has only a marginal influence on trust in the ECB and, if anything, it originates mainly from demand-side rather than supply-side narratives.

Table 3: Treatment effects on trust in the central bank: 5 years ahead group

	(1)	(2)	(3)
Control: Primer (reference)			
T1: Primer+Demand	-0.026*	-0.024*	-0.014
	(0.01)	(0.01)	(0.01)
T2: Primer+Supply	-0.019	-0.00025	0.0053
	(0.02)	(0.02)	(0.01)
Qualitative inflation exp.		-0.12***	
		(0.01)	
Qualitative economic growth exp.			0.10***
			(0.01)
Demographics	Yes	Yes	Yes
Pseudo R^2	0.003	0.045	0.055
N observations	1927	1927	1927

Note: This table presents the marginal effects of treatments on trust in the ECB among respondents who provide macroeconomic expectations 5 years ahead. Trust in the central bank measured on a three-category scale (strengthened, unaffected, weakened). The estimates are obtained from ordered probit regressions, with marginal effects reported for the likelihood of selecting "strengthened". Demographic controls include age, gender, education, household income, and region. Standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

3.5 Heterogeneity

In this subsection, we examine the heterogeneity of treatment effects across different domains of household concerns—namely climate change, the economic situation, the geopolitical situation, and U.S. trade policy—based on responses to the following core question: "To what extent do you think the following developments are a serious problem at present?" (on a scale of 1 to 10). Since the median response for most domains is 8 out of 10, with the exception of the economic situation, which has a median of 7, we classify respondents as having high concern about a specific topic if they provide a rating between 8 and 10. The corresponding results are reported in Tables A7–A10 in the Appendix. Furthermore, Tables A11–A14 present the treatment effects across key household demographic characteristics, namely education, income, gender, and age groups.

First, we find that the effects of the supply treatment on macroeconomic expectations are generally robust across all household groups, suggesting that supply-side narratives significantly increase stagflationary expectations in the overall population. While the supply treatment does not, on average, have a significant effect on trust in the ECB, it appears to reduce trust among low-income households and older individuals aged 60 and above.

In contrast, the effect of the demand treatment on growth becomes insignificant for certain groups, such as respondents with low climate concern, high economic concern, or female respondents. Consistent with the overall results, the demand treatment does not significantly affect inflation expectations in any household group. Moreover, the negative effect of the demand treatment on trust in the ECB appears to be driven primarily by respondents with high concerns about the economic or geopolitical situation, as well as those without a college degree or lower income levels.

4 Discussion

Our findings offer a number of insights into the formation of household macroeconomic beliefs and the role of public communication in shaping them. The results show that households do not passively process policy information. Instead, their expectations about inflation and growth might depend heavily on the economic narrative frame in which a policy is presented. The same underlying policy, in this paper the climate mitigation effort, produces distinct macroeconomic narratives when described as a supply or demand shock. This heterogeneity in interpretation is not simply theoretical, but it offers useful implications for how households perceive the impacts from economic policies.

First, our results deepen the empirical understanding of the stagflationary view

of inflation. Previous studies have shown that households often associate high inflation with economic downturn, rather than overheating. These beliefs have been inferred indirectly, via surveys (Kamdar and Ray, 2024; Candia et al., 2020) or through randomized shifts in inflation expectations and subsequent changes in behavior (Coibion et al., 2023, 2022). Our experiment adds a new dimension by directly manipulating the narrative framing of a structural policy shock, while holding the informational content constant. The fact that only the supply-side framing implies a simultaneous increase in inflation expectations and a decline in growth forecasts supports the view that stagflationary beliefs are not merely retrospective correlations, but can be implied by how the economy is described. Households appear to form expectations using a model in which supply shocks trigger pessimistic expectations for prices and output.

Second, our results contribute to a growing literature on the role of narratives in economic behavior (e.g., see Andre et al. (2024)). Households do not process information mechanically but they interpret it through simplified stories, often grounded in prior beliefs or media coverage. The green transition offers a natural test case because it can plausibly be understood through multiple economic channels. What our experiment shows is that belief formation is sensitive to framing even when factual content is held fixed. This has broader implications for how policymakers, journalists, and economists may communicate about structural change. Whether the subject is climate, trade, or automation, the framing of economic consequences may be as important as the content itself in shaping public expectations and responses.

In sum, this paper shows that the economic frame through which policy is communicated has first-order effects on household beliefs. These effects are asymmetric: supply frames generate stagflationary expectations, whereas demand frames do not produce disinflationary expectations. Both patterns are relevant for cen-

tral bank credibility, and more generally for macroeconomic policymaking in a world where expectations are narrative-driven. Understanding and anticipating these responses is critical for effective policy design and public communication. Central banks and governments might treat narrative framing as a strategic communication choice. This insight applies to other structural transitions, such as digitalization and AI introduction, where uncertainty is high and public expectations are particularly sensitive.

References

Andre, P., I. Haaland, C. Roth, M. Wiederholt, and J. Wohlfart (2024). Narratives about the macroeconomy. Technical report, SAFE Working Paper.

Blinder, A. S., M. Ehrmann, J. de Haan, and D.-J. Jansen (2024). Central bank communication with the general public: Promise or false hope? *Journal of Economic Literature 62*(2), 425–57.

Candia, B., O. Coibion, and Y. Gorodnichenko (2020). Communication and the beliefs of economic agents. *Jackson Hole Economic Policy Symposium Proceedings*, 301–347.

Ciccarelli, M. and F. Marotta (2024). Demand or supply? an empirical exploration of the effects of climate change on the macroeconomy. *Energy Economics 129*, 107163.

Coibion, O., D. Georgarakos, Y. Gorodnichenko, and M. van Rooij (2023). How does consumption respond to news about inflation? field evidence from a randomized control trial. *American Economic Journal: Macroeconomics 15*(3), 109–52.

Coibion, O., Y. Gorodnichenko, and M. Weber (2022). Monetary policy communications and their effects on household inflation expectations. *Journal of Political Economy 130*(6), 1537–1584.

Dietrich, A. M., G. J. Müller, and R. S. Schoenle (2024). Big news: Climate-disaster expectations and the business cycle. *Journal of Economic Behavior & Organization 227*(C).

D'Acunto, F., F. D. Fiore, D. Sandri, and M. Weber (2025). A global survey of household perceptions and expectations. *BIS Quarterly Review*, 33–48.

Eickmeier, S. and L. Petersen (2024). The ECB's Climate Activities and Public Trust. NBER Working Papers 33103, National Bureau of Economic Research, Inc.

Ferreira, C. and S. Pica (2025). Households' subjective expectations: Disagreement, common drivers, and reaction to aggregate shocks. mimeo.

Georgarakos, D., G. Kenny, J. Meyer, and M. Rooij (2025). How do rising temperatures affect inflation expectations? *De Nederlandsche Bank Working Paper 843*.

Kamdar, R. and W. Ray (2024). Attention-driven sentiment and the business cycle. CEPR Discussion Paper No. 18984.

Meinerding, C., A. Poinelli, and Y. Schüler (2023). Households' inflation expectations and concern about climate change. *European Journal of Political Economy 80*(C), 102451.

Shiller, R. J. (1996). Why do people dislike inflation? Working Paper 5539, National Bureau of Economic Research.

Stantcheva, S. (2024). Why do we dislike inflation? *Brookings Papers on Economic Activity Spring 2024*, 1–46.

A Appendix

A.1 Balance tests

Table A1: Balance test: Whole sample

	(1) Control: Primer		(2) T1: Primer+Demand		(3) T2: Primer+Supply		(2)-(1) Pairwise t-test		(3)-(1)	
Variable	N	Mean/(SD)	N	Mean/(SD)	N	Mean/(SD)	N	P-value	N	P-value
age	1349	56.110 (15.265)	1350	55.877 (15.573)	1349	55.795 (16.091)	2699	0.694	2698	0.602
male	1349	0.598 (0.490)	1350	0.581 (0.493)	1349	0.588 (0.492)	2699	0.377	2698	0.583
household income	1308	4259.557 (2046.982)	1308	4192.661 (1993.452)	1306	4263.783 (2065.244)	2616	0.397	2614	0.958
college	1349	0.468 (0.499)	1350	0.464 (0.499)	1349	0.444 (0.497)	2699	0.803	2698	0.202
east	1349	0.182 (0.386)	1350	0.163 (0.369)	1349	0.168 (0.374)	2699	0.183	2698	0.311
north	1349	0.174 (0.379)	1350	0.162 (0.369)	1349	0.172 (0.378)	2699	0.406	2698	0.879
west	1349	0.249 (0.433)	1350	0.261 (0.440)	1349	0.272 (0.445)	2699	0.460	2698	0.174
south	1349	0.394 (0.489)	1350	0.413 (0.493)	1349	0.388 (0.488)	2699	0.316	2698	0.752

Significance: ***=.01, **=.05, *=.1.

Table A2: Balance test: expectations 3 years ahead group

	(1) Control: Primer		(2) T1: Primer+Demand		(3) T2: Primer+Supply		(2)-(1) Pairwise t-test		(3)-(1) Pairwise t-test	
Variable	N	Mean/(SD)	N	Mean/(SD)	N	Mean/(SD)	N	P-value	N	P-value
age	638	55.803 (15.058)	620	56.487 (15.420)	766	56.065 (15.774)	1258	0.426	1404	0.751
male	638	0.614 (0.487)	620	0.574 (0.495)	766	0.593 (0.492)	1258	0.146	1404	0.408
household income	623	4327.849 (2085.482)	606	4179.868 (1944.485)	739	4247.970 (2058.962)	1229	0.199	1362	0.478
college	638	0.470 (0.500)	620	0.458 (0.499)	766	0.436 (0.496)	1258	0.666	1404	0.200
east	638	0.176 (0.381)	620	0.168 (0.374)	766	0.166 (0.372)	1258	0.714	1404	0.629
north	638	0.161 (0.368)	620	0.161 (0.368)	766	0.178 (0.382)	1258	0.994	1404	0.424
west	638	0.260 (0.439)	620	0.248 (0.432)	766	0.270 (0.444)	1258	0.631	1404	0.672
south	638	0.403 (0.491)	620	0.423 (0.494)	766	0.386 (0.487)	1258	0.477	1404	0.532

Significance: ***=.01, **=.05, *=.1.

Table A3: Balance test: expectations 5 years ahead group

	(1) Control: Primer		(2) T1: Primer+Demand		(3) T2: Primer+Supply		(2)-(1) Pairwise t-test		(3)-(1) Pairwise t-test	
Variable	N	Mean/(SD)	N	Mean/(SD)	N	Mean/(SD)	N	P-value	N	P-value
age	711	56.387 (15.454)	730	55.359 (15.694)	583	55.441 (16.505)	1441	0.211	1294	0.288
male	711	0.584 (0.493)	730	0.588 (0.493)	583	0.581 (0.494)	1441	0.878	1294	0.936
household income	685	4197.445 (2010.838)	702	4203.704 (2036.094)	567	4284.392 (2075.041)	1387	0.954	1252	0.453
college	711	0.467 (0.499)	730	0.468 (0.499)	583	0.455 (0.498)	1441	0.953	1294	0.656
east	711	0.188 (0.391)	730	0.159 (0.366)	583	0.170 (0.376)	1441	0.139	1294	0.385
north	711	0.186 (0.389)	730	0.163 (0.370)	583	0.165 (0.371)	1441	0.258	1294	0.325
west	711	0.239 (0.427)	730	0.273 (0.446)	583	0.274 (0.447)	1441	0.145	1294	0.147
south	711	0.387 (0.487)	730	0.405 (0.491)	583	0.391 (0.488)	1441	0.468	1294	0.875

Significance: ***=.01, **=.05, *=.1.

A.2 Determinants of information treatment agreement

Table A4: Determinants of Information Agreement

	(1) Demand treament	(2) Supply treatment	(3) Demand treatment	(4) Supply treatment
Problem: Climate change			-0.38***	-0.38***
			(0.02)	(0.02)
Problem: Economic situation			0.37***	0.31***
			(0.03)	(0.03)
female	-0.48***	-0.22	-0.12	-0.048
	(0.14)	(0.15)	(0.12)	(0.13)
age	0.00070	0.0038	0.0054	0.0034
	(0.00)	(0.00)	(0.00)	(0.00)
west	0.19	0.45**	-0.00036	0.29
	(0.21)	(0.21)	(0.19)	(0.19)
south	0.11	0.49**	-0.16	0.30*
	(0.20)	(0.20)	(0.17)	(0.18)
east	0.24	0.18	-0.19	-0.15
	(0.24)	(0.24)	(0.21)	(0.22)
college	-0.41***	-0.36**	-0.19	-0.26**
	(0.14)	(0.15)	(0.12)	(0.13)
household income	-0.14	0.068	0.042	0.15
	(0.13)	(0.14)	(0.12)	(0.12)
Adj. R^2	0.012	0.007	0.235	0.218
N observations	1299	1302	1299	1302

Note: This table presents OLS coefficient estimates. The dependent variable measures agreement with the demand or supply information treatment on a scale from 1 (strongly disagree) to 10 (strongly agree). Standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

A.3 Treatment effects on macroeconomic expectations 3 years ahead

Table A5: Treatment effects on macroeconomic expectations 3 years ahead

	(1) Qualitative economic growth exp.	(2) Qualitative inflation exp.	(3) Quantitative inflation exp.
Control: Primer (reference)			
T1: Primer+Demand	-0.033*	0.014	0.15**
	(0.02)	(0.03)	(0.06)
T2: Primer+Supply	-0.049**	0.054**	0.17***
	(0.02)	(0.03)	(0.06)
Prior expectations	Yes	Yes	Yes
Demographics	Yes	Yes	Yes
Pseudo R^2	0.062	0.049	
Adj. R^2			0.790
N observations	1955	1953	1786

Note: This table presents the marginal effects of treatments on macroeconomic expectations 3 years ahead. Columns (1) and (2) report results for qualitative expectations of economic growth and inflation, respectively, measured on a three-category scale (decrease, stay the same, increase). The estimates are obtained from ordered probit regressions, with marginal effects reported for the likelihood of selecting increase. In column (3), we report the estimated effects from Huber regressions for quantitative inflation expectations. Demographic controls include age, gender, education, household income, and region. Standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A6: Treatment effects on trust in the central bank: 3 years ahead group

	(1)	(2)	(3)
Control: Primer (reference)			
T1: Primer+Demand	-0.031**	-0.028**	-0.024**
	(0.01)	(0.01)	(0.01)
T2: Primer+Supply	-0.013	-0.0059	-0.0014
	(0.01)	(0.01)	(0.01)
Qualitative inflation exp.		-0.090***	
		(0.01)	
Qualitative economic growth exp.			0.11***
			(0.01)
Demographics	Yes	Yes	Yes
Pseudo R^2	0.007	0.037	0.078
N observations	1940	1940	1940

Note: This table presents the marginal effects of treatments on trust in the ECB among respondents who provide macroeconomic expectations 3 years ahead. Trust in the central bank measured on a three-category scale (strengthened, unaffected, weakened). The estimates are obtained from ordered probit regressions, with marginal effects reported for the likelihood of selecting "strengthened". Demographic controls include age, gender, education, household income, and region. Standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

A.4 Heterogeneous treatment effects

Table A7: Treatment effects across climate concerns

	(1)	(2)	(3)	(4)	(5)	(6)
	Climate concerns: Low			Climate concerns: High		
	growth exp.	inf. exp.	ECB	growth exp.	inf. exp.	ECB
Control: Primer (reference)						
T1: Primer+Demand	-0.027	0.037	-0.017	-0.098***	-0.019	-0.025
	(0.02)	(0.04)	(0.02)	(0.03)	(0.03)	(0.02)
T2: Primer+Supply	-0.071***	0.098**	-0.0067	-0.12***	0.11***	-0.024
	(0.02)	(0.04)	(0.02)	(0.03)	(0.04)	(0.02)
Prior expectations	Yes	Yes	No	Yes	Yes	No
Demographics	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R^2	0.080	0.065	0.006	0.072	0.064	0.009
N observations	891	890	885	1055	1047	1042

Note: This table presents the marginal effects of treatments on macroeconomic expectations and trust in the ECB among respondents who provide macroeconomic expectations 5 years ahead. Qualitative expectations of economic growth and inflation, respectively, measured on a three-category scale (decrease, stay the same, increase). Trust in the central bank measured on a three-category scale (strengthened, unaffected, weakened). The estimates are obtained from ordered probit regressions, with marginal effects reported for the likelihood of selecting "increase" for macroeconomic expectations and "strengthened" for trust in the ECB. Demographic controls include age, gender, education, household income, and region. Standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A8: Treatment effects across economy concerns

	(1)	(2)	(3)	(4)	(5)	(6)
	Economy concerns: Low			Economy concerns: High		
	growth exp.	inf. exp.	ECB	growth exp.	inf. exp.	ECB
Control: Primer (reference)						
T1: Primer+Demand	-0.098***	0.0065	-0.0011	0.037	-0.00064	-0.053**
	(0.03)	(0.03)	(0.02)	(0.04)	(0.04)	(0.02)
T2: Primer+Supply	-0.13***	0.14***	-0.013	0.11**	0.052	-0.021
	(0.03)	(0.03)	(0.02)	(0.04)	(0.04)	(0.02)
Prior expectations	Yes	Yes	No	Yes	Yes	No
Demographics	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R^2	0.057	0.052	0.002	0.114	0.083	0.014
N observations	1199	1194	1191	747	743	736

Note: This table presents the marginal effects of treatments on macroeconomic expectations and trust in the ECB among respondents who provide macroeconomic expectations 5 years ahead. Qualitative expectations of economic growth and inflation, respectively, measured on a three-category scale (decrease, stay the same, increase). Trust in the central bank measured on a three-category scale (strengthened, unaffected, weakened). The estimates are obtained from ordered probit regressions, with marginal effects reported for the likelihood of selecting "increase" for macroeconomic expectations and "strengthened" for trust in the ECB. Demographic controls include age, gender, education, household income, and region. Standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A9: Treatment effects across geopolitical concerns

	(1)	(2)	(3)	(4)	(5)	(6)
	Geopolitical concerns: Low			Geopolitical concerns: High		
	growth exp.	inf. exp.	ECB	growth exp.	inf. exp.	ECB
Control: Primer (reference)						
T1: Primer+Demand	-0.065*	0.019	0.0057	-0.073***	0.0019	-0.043**
	(0.03)	(0.04)	(0.03)	(0.03)	(0.03)	(0.02)
T2: Primer+Supply	-0.10***	0.13***	-0.038	-0.11***	0.094***	-0.0078
	(0.04)	(0.04)	(0.02)	(0.03)	(0.03)	(0.02)
Prior expectations	Yes	Yes	No	Yes	Yes	No
Demographics	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R^2	0.054	0.072	0.009	0.101	0.060	0.006
N observations	738	734	729	1208	1203	1198

Note: This table presents the marginal effects of treatments on macroeconomic expectations and trust in the ECB among respondents who provide macroeconomic expectations 5 years ahead. Qualitative expectations of economic growth and inflation, respectively, measured on a three-category scale (decrease, stay the same, increase). Trust in the central bank measured on a three-category scale (strengthened, unaffected, weakened). The estimates are obtained from ordered probit regressions, with marginal effects reported for the likelihood of selecting "increase" for macroeconomic expectations and "strengthened" for trust in the ECB. Demographic controls include age, gender, education, household income, and region. Standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A10: Treatment effects across trade concerns

	(1)	(2)	(3)	(4)	(5)	(6)
	Trade concerns: Low			Trade concerns: High		
	growth exp.	inf. exp.	ECB	growth exp.	inf. exp.	ECB
Control: Primer (reference)						
T1: Primer+Demand	-0.076**	0.032	-0.031	-0.070**	-0.011	-0.024
	(0.03)	(0.04)	(0.02)	(0.03)	(0.03)	(0.02)
T2: Primer+Supply	-0.073**	0.090**	-0.022	-0.14***	0.12***	-0.017
	(0.03)	(0.04)	(0.02)	(0.03)	(0.04)	(0.02)
Prior expectations	Yes	Yes	No	Yes	Yes	No
Demographics	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R^2	0.084	0.073	0.006	0.083	0.059	0.001
N observations	842	841	837	1104	1096	1090

Note: This table presents the marginal effects of treatments on macroeconomic expectations and trust in the ECB among respondents who provide macroeconomic expectations 5 years ahead. Qualitative expectations of economic growth and inflation, respectively, measured on a three-category scale (decrease, stay the same, increase). Trust in the central bank measured on a three-category scale (strengthened, unaffected, weakened). The estimates are obtained from ordered probit regressions, with marginal effects reported for the likelihood of selecting "increase" for macroeconomic expectations and "strengthened" for trust in the ECB. Demographic controls include age, gender, education, household income, and region. Standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A11: Treatment effects across education

	(1)	(2)	(3)	(4)	(5)	(6)
	No college degree			College degree		
	growth exp.	inf. exp.	ECB	growth exp.	inf. exp.	ECB
Control: Primer (reference)						
T1: Primer+Demand	-0.063**	-0.016	-0.044**	-0.087***	0.042	-0.0067
	(0.03)	(0.03)	(0.02)	(0.03)	(0.04)	(0.02)
T2: Primer+Supply	-0.13***	0.11***	-0.033	-0.085**	0.10***	-0.00085
	(0.03)	(0.04)	(0.02)	(0.03)	(0.04)	(0.02)
Prior expectations	Yes	Yes	No	Yes	Yes	No
Demographics	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R^2	0.077	0.061	0.009	0.086	0.070	0.001
N observations	1043	1036	1029	903	901	898

Note: This table presents the marginal effects of treatments on macroeconomic expectations and trust in the ECB among respondents who provide macroeconomic expectations 5 years ahead. Qualitative expectations of economic growth and inflation, respectively, measured on a three-category scale (decrease, stay the same, increase). Trust in the central bank measured on a three-category scale (strengthened, unaffected, weakened). The estimates are obtained from ordered probit regressions, with marginal effects reported for the likelihood of selecting "increase" for macroeconomic expectations and "strengthened" for trust in the ECB. Demographic controls include age, gender, education, household income, and region. Standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A12: Treatment effects across income

	(1)	(2)	(3)	(4)	(5)	(6)
	Low household income			High household income		
	growth exp.	inf. exp.	ECB	growth exp.	inf. exp.	ECB
Control: Primer (reference)						
T1: Primer+Demand	-0.071**	0.030	-0.039*	-0.072**	-0.014	-0.012
	(0.03)	(0.04)	(0.02)	(0.03)	(0.04)	(0.02)
T2: Primer+Supply	-0.10***	0.14***	-0.037*	-0.12***	0.077**	0.0029
	(0.03)	(0.04)	(0.02)	(0.03)	(0.04)	(0.02)
Prior expectations	Yes	Yes	No	Yes	Yes	No
Demographics	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R^2	0.089	0.062	0.007	0.074	0.067	0.002
N observations	983	978	971	963	959	956

Note: This table presents the marginal effects of treatments on macroeconomic expectations and trust in the ECB among respondents who provide macroeconomic expectations 5 years ahead. Qualitative expectations of economic growth and inflation, respectively, measured on a three-category scale (decrease, stay the same, increase). Trust in the central bank measured on a three-category scale (strengthened, unaffected, weakened). The estimates are obtained from ordered probit regressions, with marginal effects reported for the likelihood of selecting "increase" for macroeconomic expectations and "strengthened" for trust in the ECB. Demographic controls include age, gender, education, household income, and region. Standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A13: Treatment effects across gender: Female vs. Male

	(1)	(2)	(3)	(4)	(5)	(6)
	Female			Male		
	growth exp.	inf. exp.	ECB	growth exp.	inf. exp.	ECB
Control: Primer (reference)						
T1: Primer+Demand	-0.052	0.014	-0.029	-0.084***	0.0049	-0.023
	(0.03)	(0.04)	(0.02)	(0.03)	(0.03)	(0.02)
T2: Primer+Supply	-0.13***	0.12***	-0.011	-0.093***	0.10***	-0.024
	(0.03)	(0.04)	(0.03)	(0.03)	(0.04)	(0.02)
Prior expectations	Yes	Yes	No	Yes	Yes	No
Demographics	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R^2	0.082	0.056	0.006	0.083	0.072	0.002
N observations	797	788	783	1149	1149	1144

Note: This table presents the marginal effects of treatments on macroeconomic expectations and trust in the ECB among respondents who provide macroeconomic expectations 5 years ahead. Qualitative expectations of economic growth and inflation, respectively, measured on a three-category scale (decrease, stay the same, increase). Trust in the central bank measured on a three-category scale (strengthened, unaffected, weakened). The estimates are obtained from ordered probit regressions, with marginal effects reported for the likelihood of selecting "increase" for macroeconomic expectations and "strengthened" for trust in the ECB. Demographic controls include age, gender, education, household income, and region. Standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A14: Treatment effects across age groups

	(1)	(2)	(3)	(4)	(5)	(6)
	Age: 16-59			Age: 60+		
	growth exp.	inf. exp.	ECB	growth exp.	inf. exp.	ECB
Control: Primer (reference)						
T1: Primer+Demand	-0.081***	-0.012	-0.022	-0.059*	0.041	-0.030
	(0.03)	(0.03)	(0.02)	(0.03)	(0.04)	(0.02)
T2: Primer+Supply	-0.11***	0.079**	-0.0046	-0.12***	0.15***	-0.042*
	(0.03)	(0.04)	(0.02)	(0.03)	(0.04)	(0.03)
Prior expectations	Yes	Yes	No	Yes	Yes	No
Demographics	Yes	Yes	Yes	Yes	Yes	Yes
Pseudo R^2	0.078	0.057	0.002	0.086	0.083	0.010
N observations	1091	1085	1078	855	852	849

Note: This table presents the marginal effects of treatments on macroeconomic expectations and trust in the ECB among respondents who provide macroeconomic expectations 5 years ahead. Qualitative expectations of economic growth and inflation, respectively, measured on a three-category scale (decrease, stay the same, increase). Trust in the central bank measured on a three-category scale (strengthened, unaffected, weakened). The estimates are obtained from ordered probit regressions, with marginal effects reported for the likelihood of selecting "increase" for macroeconomic expectations and "strengthened" for trust in the ECB. Demographic controls include age, gender, education, household income, and region. Standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.